

IRIS PEONIES GARDENERS' CALENDAR—FARMERS' MARKETS

Most gardeners have an idea that iris bloom at the "iris season" and are over with. Some varieties bloom considerably later than others, and Mrs. Allen Gray blooms a second time late in July and August when iris flowers of other varieties are unobtainable. This is a beautiful soft blue.

With whites, lilacs, yellows, rose and purples it is no wonder that gardeners easily catch the iris craze and collect as many different shades and varieties as possible. Iris and peonies seem to just need collecting.

Iris are called orchids of the garden. They do best in full sunlight rather than in shady spots, and well drained soils suit them exactly. They do well, however, on dry banks at the base of stone walls. Avoid using fresh manure in making iris beds, but use instead bone meal and lime dug into the soil before planting and given as a top dressing occasionally.

When the tips of the leaves turn brown it is an indication that the plants are in soil that is too wet or sour; in the latter case hydrated lime worked into the soil will correct this condition.

IRIS

In these days when all our thoughts are turned to conserving the nation's food supply, some enthusiasts have even advanced the idea of tearing up the flower gardens to plant potatoes and beans. I believe this to be wholly unnecessary. There is too much idle land to be had for the asking at present, and later, too, for we need the beautiful with us in times of trouble as well as when all is fair, and if we destroy what perhaps has taken us years to develop, as in the case of the perennial garden, we must and ought to have reason to regret it; for the flower garden, to the one who has love enough to develop it, gives a solace to its owner that comes from no other source. Not so with the vegetable garden which carries with it a greedy anticipation of the good things to eat by and by. The flower garden is of a higher order, something we need to help carry us through life even with a full stomach. Those having no perennial flower garden should dig up a row of potatoes or beans, and start one this month and have a magnificent row of flowers early next spring. I should like to tell of the various kinds of plant, but will mention only one of the early and most satisfactory perennials, the iris, or fleur de lis of France. Decoration Day finds my iris in full bloom and I am always more than paid for the little care they need. Like most flowering plants, they respond beautifully to the use of fertilizer, and should be given one or two applications. They may be grown in fields by the hundreds, in the corner of the back yard, by the front door step or in rows lining the walks. They seem quite as satisfied in one spot as another. About the only thing they insist on is good drainage. They grow in any soil at all. One small root will increase six or eight times its original size in two or three years and give many blooms. The iris has practically no insect enemies, therefore is easy for the amateur to grow. It needs little care, no winter protection and lives year after year, putting forth its blooms regularly every spring.

When the clumps become crowded they should be divided and each small root given a space two feet or a little less in which to spread again. Transplant in August and September and the plants will bloom again the following spring.

The German iris, or fleur de lis of France has been the favorite in America, but the plant of them all is the Japanese. The iris family is a large one, with dwarfs and giants, singles and doubles, most of them fragrant, with colors ranging from white through many shades of blue, pink and white, purple, yellow and gold.

Spanish and English iris are the cut flower of England, used by the thousands. One stalk carries three or four buds and if picked when the top flower opens the others will open when the stem is placed in water. Thus they last well when cut. If not acquired with the iris buy a few this fall and expect to be fully repaid next spring.

C. E. B. SPALDING.

PEONIES.

Peonies are not fastidious; they love deep soil, but grow to perfection in sandy and comparatively shallow and light soils. There is a wealth of variety, following each other in rapid succession, which keeps the garden supplied with flowers for weeks.

Few gardens are so small as not to have room for a peony or two, perhaps grouped at one corner of a square bed, in a clump in an out of the way spot on the lawn, or as the centre of an oval bed. The way to obtain the best effect, however, is to plant peonies in masses in borders. A great peony border fringing a carriage drive, having a grass verge of five or six feet in its front, is a revelation when in flower.

How deep shall I prepare the soil? This is the question frequently asked and when answered the advice is almost never followed. If very best results are wanted the soil cannot be too deeply prepared although peonies do best when only half cared for. A depth of three feet is required for the roots which will produce plants almost three feet high. In England they sometimes attain a height of four and a half feet. The plants do best in soil only two feet deep.

In using fertilizer use well rotted horse manure and on no account use fresh manure.

In the autumn is the time to plant peonies. If they cannot be planted the autumn wait another year, and plant early in September if the ground can be made ready. Bury the crown two or three inches below the surface and two feet apart. Planted with lilac and daffodils the peonies should be at least three feet apart and a border of this kind will be beautiful for many years. The plants will be benefited during the entire growing season by a copious supply of water, though they are sufficiently well for many who grow

them with only such water as may be supplied by rains.

In dividing peonies to be transplanted never use a hatchet, knife or spade, as it sometimes advised, as it is the surest way of spoiling the roots. First shake away all soil from the roots, which will bear the solid root stock and the sturdy tap roots. If the plant is large, lay it on its side and insert two garden forks back to back, driving them into the root stock two inches apart on the crown. Press the forks apart and the severance, although difficult, will be accomplished without loss.

THE GARDENERS' CALENDAR.

"The Gardeners' Calendar," by Philip Miller, was one of the most popular horticultural books of some thirty years ago. The thirteenth edition was printed in Dublin, Ireland, in 1761.

Most of the advice in this little book is suitable for the gardener of the present day. For August the following are some of the suggestions:

"Continue to sow seeds of cress, rape, turnip, radish, mustard and other kind of salad herbs every week, that the table may not be unfurnished. Gather all sorts of kitchen garden seeds, which are ripe, spreading them on mats to dry, and then beat or rub them out of their husks or pods and put them up till the seasons for sowing them."

"Transplant the layers of carnations, pinks and sweet-williams, which by this time have taken root, if timely laid."

"Gather all sorts of flower seeds as they ripen and spread them to dry in the sun, after which they should be preserved in their pods or husks until the seasons for sowing them, for the seeds of most plants may be kept longer good in their pods than when they are rubbed out."

"Continue to keep all your late crops clear from weeds, for if they are not well cleared before the great rains of autumn fall it will be difficult to destroy the weeds afterward, for at this season the weeds are generally produced in plenty."

September.

"You should now prepare the ground where fruit trees are designed to be planted the next month, that it may lie to mellow and sweeten, and where new borders are made the ground will have time to settle before the trees are planted."

"Green sage and damson plums are recommended with other obsolete varieties. Dig the borders of your flower garden and add some very rotten dung to them and plant all sorts of hardy flowers therein, observing to mix them in such a manner that there may be a regular succession of flowers throughout the season in the different parts of the garden."

"Next month is the time to transplant your biennial and perennial flowers, which were sown in the flower nursery (seed bed), into the borders of the pleasure garden, where they are designed to grow."

"This is the proper season for parting and transplanting all sorts of irises, peonies, lily of the valley, columbines, &c., that they may be well rooted before the spring, otherwise they will not flower well the following summer. You may also part the roots of the early flowering asters and geraniums, whose stalks are beginning to wither, and plant them out in large borders, allowing them proper room, otherwise their roots will spread over whatever plants grow near them."

"Transplant strawberries, raspberries, blackberries, gooseberries and currants, if the weather proves mild, otherwise it will be better to defer it until the beginning of the next month, and this is the best season to plant cuttings of raspberries, gooseberries and currants, which will take root and make better plants than those which are propagated by suckers."

"Make the cuttings about six inches long and plant them half their length about three inches apart in good rich soil that has been made deep and mellow by spading, breaking the lumps up so the soil will be fine and soft. Firm the soil well about the cuttings with the foot. Wait until the leaves have dropped before making the cuttings."

"You may also plant cuttings of honeysuckles."

"Rambler roses and some of the hardy perpetual roses can be rooted in the same manner."

"Toward the end of the month you may begin to transplant fruit and shade shrubs, &c. If the season proves dry it is better to defer it till rain falls, but if there is a necessity to remove them they must be now and then watered. You should also lay some mulch upon the surface of the ground about their roots. The soil should be so moist that the cuttings will be able to take root without the aid of the weather, which will not injure them so much as those planted in the spring."

"You must now plant your choice hyacinth roots; in doing which, after having prepared beds with good soil about two feet deep, you should take the care to plant the beds six inches deep, then make the bottom level and draw lines across at the distance which the roots are to be placed that they may stand in rows of equal distances, and then place the roots exactly in the middle of each square and lay the roots in them gently, being careful not to place the roots. These beds must be filled up about five inches thick with earth above the tops of the bulbs. This is a much better method of planting these roots than that of making holes for each root with a dibble or instrument."

"Continue to remove all sorts of succulent plants which were removed out of doors in summer must now be carried in again, especially if the season prove wet or the nights cold, for by the favorableness of the weather these plants are sometimes permitted to remain abroad until the end of this month, when at other times the weather will oblige you to carry them in at the beginning of the month, for much wet is very prejudicial to them and small morning frosts would destroy or greatly damage many of them. Therefore you must be directed by the season when to remove your plants into the house."

"When you place your exotic plants in the house you should observe to pick off all decayed leaves from them and clear their leaves and branches from filth or insects, and you must stir the earth in the pots with a small trowel, being careful not to injure the roots of the plants."



Plant evergreens in August.

Transplant iris.

Dig grapes and thus prevent rot.

Keep the weeds out of the garden and lawns throughout the entire season.

There promises to be a good crop of forest trees this year. Wood lots should have the ripe and over-mature trees taken out and sent to the sawmill and woodpile. Now is the time to inspect the trees, while they are in full leaf. Trees badly overtopped by their neighbors should be removed, but making large openings should be avoided by cutting too heavily. A good crop of tree seed will keep the land from going wild.

Gladol leaves with brown tips indicate that the soil is sour or too wet.

Fruit and vegetable growers should look over the fruit displayed at the stores when they are in town and ask themselves what they would buy if they were customers. If the attractive bunches and packages create a desire to buy, why not give produce sent to market a better chance to bring top prices by carefully grading and packing.

Peonies should be planted in the autumn. Do not wait until spring. Iris also does better the following season if planted in the autumn.

Frank H. Presby of Montclair, N. J., is busy collecting many varieties of lilacs as possible, which he has presented to the town for the public park.

Plant top onions in August or early September for early young onions next spring. Leave a few plants to mature and they will produce little onions on the tops of the stems, and these can be planted for the following season's crop of young onions.

The largest potato crop ever produced in this country is the promise of the monthly crop report just issued by the Bureau of Crop Estimates of the United States Department of Agriculture. The average production for the previous five years (1911-1915) was 262,000,000 bushels, which represents a fair crop. This year the indications are that there will be a crop of 467,000,000 bushels, which is 100,000,000 above the average.

This is equal to one bushel extra for every man, woman and child in the country if the estimate is realized when the crop is harvested.

In order to avoid waste all housewives are urged to use potatoes as far as possible as a substitute for bread-stuffs, not only to use the potatoes to advantage but to save wheat.

Bulletin 871, United States Department of Agriculture, "How to Use Fresh Fruit and Vegetables as Preservers of Staple Food," will be mailed free on application and will be found useful by those who contemplate canning fruits or vegetables.

FLOWER SHOW.

The American Gladiolus Society will hold an exhibition under the auspices of the New York Botanical Garden, Horticultural Society of New York and New York Florists' Club at the Museum building, Bronx Park, August 23 to 24. Admission free. The show will be well worth seeing. Rare gladioli from all over the country will be shown.

The Third Avenue elevated railway has a station at Botanical Garden, Bronx Park. Subway passengers should change to the elevated railway at 149th Street and Third Avenue.

PRESERVING VEGETABLES BY FERMENTATION.

The fermentation method is widely used abroad for preserving string beans, beets, cabbage, cucumbers and other garden crops.

Sauerkraut and pickles put up in this way are fairly well known in this country, but comparatively few persons have thought of trying it as a household measure for preserving these and other vegetables. Those who like acid foods and who have too few canning containers to hold their surplus products may find this method useful. The following description of this method of fermenting vegetables is prepared by one of the bacteriologists in the Bureau of Chemistry of the United States Department of Agriculture, who has been experimenting with this process.

The vegetables are not cooked, but are put down in salt brine in any non-metal water tight container and are sealed up with paraffin and are otherwise made air tight. Under this treatment lactic acid will develop, and this

acid, the value of which as food has been recognized, acts as a preservative. Whether Americans will develop a taste for such fermented foods highly prized in Europe remains to be seen, but the process is worth trying.

To Preserve Cucumbers.

Wash the fruit and pack into a clean watertight barrel, keg or crock. On the bottom of the barrel place a layer of dill weed and a handful of mixed spices. Press down with a clean board half full, and when almost full add a third layer. If a keg or crock is used the amount of dill and spice can be reduced in proportion to the size of the receptacle. When the container has been filled within a few inches of the top add a layer of covering material—beet tops or grape leaves—about an inch thick. If any spoilage should occur on the surface this layer will protect the vegetables beneath. Press down with a clean board weighted with bricks or stones. Do not use limestone or sandstone.

Make a brine by adding one pound of salt to 10 quarts of water. To each 10 quarts of brine so made add 1-2 of quarts of vinegar. The vinegar is used primarily to keep down the growth of injurious bacteria until the lactic acid ferment starts, but it also adds to the flavor. Add sufficient brine to cover the material and allow to stand twenty-four hours. Then make a tight seal, as described below. The time necessary for complete fermentation to occur depends upon the temperature.

In a warm place only five days to a week may be necessary; in a cool cellar three to four weeks.

Beets and String Beans.

The strings should be removed from beets before they are put up. Beets of course require careful washing to remove all dirt before brining. If it is desired, when finally the beets or string beans are to be eaten, to wash out the brine and serve them as fresh vegetables, the addition of spice when they are put up is not necessary. Proceed as with cucumbers.

Make the Containers Airtight.

There always will be more of less bubbling and foaming of the brine during the first stages of fermentation. After this ceases a thin film will appear which will spread rapidly over the whole surface and develop quickly into a heavy, folded membrane. This is a growth of yeastlike organisms which feed upon the acid formed by fermentation. If allowed to grow undisturbed it will eventually destroy all the acid and the fermented material will spoil. To prevent this from occurring it is necessary to exclude the air from the surface of the brine. This should be done by either of two methods: twenty-four hours after the vegetables have been packed.

Perhaps the best method is to cover the surface over the board and use a heavy weight with very hot melted paraffin. If the paraffin is sufficiently hot to make the brine boil when poured upon it the paraffin will form a smooth, even layer before hardening. Upon solidifying it effects a perfect seal, and the brine will not be disturbed. The tasteless liquid petroleum may also be used for this purpose. As a measure of safety with crocks it is advisable to cover the top with a cloth soaked in melted paraffin. Put the cover in place before the paraffin hardens.

The second method, which may be used with barrels or kegs, is to park the container as full as possible and then replace the head. In using this method for fermentation of beets, cucumbers or string beans, add the board and weights as described above and allow to stand for twenty-four hours before heading. During this period most of the gas first formed escapes and the container must be headed up tight. First removing the board and weights. Then bore an inch hole in the head and fill the barrel with brine, all will be all right. Allow bubbles to escape. Add more brine if possible and plug the vent tight. If the barrel does not leak fermented products put up in this manner will keep indefinitely.

After sealing with paraffin the con-

tainers should be set where they will not be disturbed until the contents are to be used. Any attempt to remove them from one place to another may break the paraffin seal and necessitate re-sealing. If the containers are not opened until cold winter weather the vegetables should keep without spoilage until they are used. If opened in warm weather they are likely to spoil quite rapidly unless the paraffin is reheated and the container resealed immediately. In the case of cucumbers it is preferable, if enough material is available, to use the method of packing in kegs or barrels as described above.

Only those vegetables which cannot be kept by storing or early ones that are not available later in the season should be preserved. Late beets, for example, can be better kept in the cellar.

LETTUCE HEAD WEIGHS 3 LBS.

Charles Weber of Taylor street, West New Brighton, who raised the great head of lettuce, weighing three pounds and measuring nineteen inches across, which was raffled for the Sun's Tobacco Fund for the American Soldiers abroad and from which \$3 was realized, says the variety was "Dreer's Wonderful."

CITY MARKETS AND CONTROL OF FARM PRODUCTS.

At Providence, R. I., the Bureau of Markets of the United States Department of Agriculture is making an effort to solve the problem of marketing perishable fruits and vegetables. Produce dealers, truck men, housewives and the local press are working together to prevent glutting the market, securing for the producers fair profits for their crops and reasonable prices for consumers.

The local agent of the Bureau of Markets completes daily all available information as to the various products offered that day on the wholesale farmers' market. Usually by 5 A. M. on the day before sales are begun the figures are in the hands of growers, dealers and the press. If the figures show the supply is light the fact and he can regulate his prices and shipments accordingly. When the supply is heavy he can look for other markets.

First of all to make this system a success there must be a farmers' market in every large city. Cities large enough may require two or more in different sections. Why not have the United States Government build and own these markets? Food is vastly more important than post offices or customs houses, necessary as these may be. The people own the one, why not the other?

To be a success markets of this kind must be located in every large consuming center. Market conditions could then be sent out to all points so shippers would know exactly where to ship to supply any shortage and to avoid markets that were glutted to prevent waste.

The proper distribution of all food would prevent waste, distributing produce equally, which would give a fair average price to every consumer, preventing very high prices in one locality and selling for less than cost of production in another. Members of the Providence Market Gardeners' Association declare that the staving off of a glut of spinach on two successive days saved them more than their share of the salary of the agent for the entire season. It is estimated that between \$500 and \$1,000 a day is being saved the consumers of Providence.

All communications intended for this page should be addressed GARDEN DEPARTMENT, THE SUN, 150 Nassau St., New York.

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fluence on home-grown fruits and vegetables.

Gardner, Mass., a town of 15,000 population, has a municipal canning factory, and as a result 1,700 home gardens were planted last spring, one to every nine inhabitants. All the surplus produced will be cared for at the canning factory. Gardner will also establish a municipal market.

Municipal markets block off their spaces and lease them for long terms to men who never cultivated a foot of ground. These men buy what they sell from farmers and beat the farmers down in price as much as possible. This is discouraging to the producer. In turn they charge the retail



Iris and peonies.

purchaser as much as possible. This is discouraging to the consumer.

Result—The producer does not produce as much as he might if his produce brought fair prices, and the consumer does not consume as much as he might if he could buy at fair prices. It is this system that fastens the middle man on the public. Farmers' markets where consumers can purchase directly from the farmer will benefit producer and consumer alike.

Get glass jars for canning early. The Government investigation shows there is no shortage, but it is best to have on hand what cans are likely to be wanted.

Jars and large-necked bottles can be capped with paper and paraffin, or in the case of jellies and stiff marmalades, with paraffin alone. Small-necked bottles, for use in putting up fruit juices, can be sealed in the following manner: Make a cotton stopper, press it into the neck of the bottle and leave during the sterilization of the bottle. Then, when the bottle is in the neck and let it remain for 40 minutes at a temperature of 165 degrees F. Then remove the bottle, press the cork, which has been baked in the oven for one hour, in the top over the cotton, immediately, and dip the top into the melted wax or paraffin.

To the Editor of THE GARDEN DEPARTMENT OF THE SUN:—I wish to thank you heartily for the prize bulb which you sent me last fall. The blossoms were very beautiful. I learned that the decorative value of bulbs in the garden is more than double, by planting them in large numbers. From the early tulip to the late blooming iris they gave great pleasure to every one who saw them. Very sincerely, Mrs. F. R.

Is there any way by which hydrangeas which are pink in the tub can be kept from turning blue when planted in the ground?

Hydrangeas that flower pink in tubs are likely to turn blue when planted in the open ground. Some blossoms will be pink and some blue in heavy soil. In light sandy soil the flowers might prove to be of one color. All I have seen in sandy soil have been blue. Has any reader had experience in keeping the flowers one color?

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Spray potatoes as long as the vines remain green. Cultivate potatoes until they are dug, to conserve the moisture in the soil and keep the weeds down.

Cucumbers sold from pedlers' wagons in Vesey street last week—large, fine, solid fruit—fifteen for 10 cents; tomatoes, twenty for 25 cents; Spanish onions, eight for 10 cents; limes, 10 cents a dozen; corn, ten ears for 10 cents. The pedlers' wagons appear usually about 4 to 6 P. M.

TRACTORS REVOLUTIONIZE FALL PLOUGHING EFFORTS.

"Fall ploughing is the best kind of crop insurance for the following year, and the tractor bids fair to revolutionize this work," says L. C. Perkins, president of the Smith Farm-a-Tractor Company.

"According to the methods in vogue before the coming of this tractor the fall ploughing came when it was hardest on both horses and men. The ploughing after the harvest is always dreaded by the man and it is safe to say the horses would vote a straight ticket against the institution."

"Now comes the tractor, unaffected by heat, long hours or the condition of the fields. The farmer can take four horses away and do just as much work with the tractor. There is no need to get new ploughs, harrows, cultivators and the like, for these can be adjusted to the tractor with small trouble. The Ford car is driven down to the field, the fenders and rear wheels are taken off, and in a few minutes the farmer has the tractor at work for him."

"I have been enthusiastic over many inventions in my work with farming implements, but never have I seen a new product that looks as good as this tractor. We are sending trained crews over the United States to show the farmers in their own fields that we are not making claims that cannot be verified. We are glad to give any one a demonstration, and the harder the tests the better we are satisfied."

POULTRY MITES.

Live by day and mites by night furnish the unhappy conditions of poultry kept under insanitary surroundings. Treatments for live birds